

Theoretical Models for Examining Multiple Stressors (Fausch *et al.* 2010, Folt *et al.* 1999)

1. Comparative—there is a *single*, worst stressor that is the limiting ecosystem function
2. Additive—stressor effects are built on one another
3. Multiplicative—One stressor is further modified by presence of a new stressor

Synergistic effects produce $>$ expected results

Antagonistic effects produce $<$ expected results

Using Sites to Compare Effects of Individual and Multiple Stressors (Statzner and Bêche 2010)

- Compare multiple stressors (A-D) acting in different combinations at different sites (manage stressors A and B at site X and C and D at Site Y)
- Compare individual stressors acting in combination (manage stressor A prior to managing stressor B at Site X)

Literature-based analysis using Multiple Lines of Evidence and Causal Criteria (Norris et al. 2010)